5. [4 points]

Let α and β be constants such that

- $\ln(\alpha) = 2$
- $\ln(\beta) = 5$

Find the value of $\ln(\alpha^6 \beta^{-3} e^{25})$. Your answer should **not** include α , β , or ln.

 $\ln(\alpha^6 \beta^{-3} e^{25}) =$ _____

6. [6 points] Let P(x) be a polynomial with the following properties:

- P(x) only has zeros at x = -3, -1, 2
- P(x) has degree 4

• The graph of P(x) passes through the points (-4, -36) and (-2, -8)

Find a formula for P(x). You do not need to simplify your answer.

 $P(x) = _____$